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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,990	05/24/2001	Bruce A. Seiber	H0001129	2636
128	7590	10/07/2003	EXAMINER	
HONEYWELL INTERNATIONAL INC. 101 COLUMBIA ROAD P O BOX 2245 MORRISTOWN, NJ 07962-2245			NGUYEN, TUAN M	
			ART UNIT	PAPER NUMBER
			2828	

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Art

## Office Action Summary

Application No.

09/864,990

Applicant(s)

SEIBER, BRUCE A.

Examiner

Tuan M Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-2, 8-9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over prior art figure 1 in view of Broberg et al ('635).

With respect to claim 1, prior art figure 1 shows a block (12) wherein a portion of the block is maintained at a reference potential, i.e. a ground through a diode (28), a cathode (22) engaging the block (12), and anodes (24, 26) engaging the block and biased at higher potential than the cathode (30), note col. 1, section (0002). However prior art figure 1 does not disclose the cathode engages the block and is biased at a higher potential than the reference potential. Whereas Broberg shows in figure 2, the source (50) has negative connect to cathode (30) and block (10) over impedance (220), with this connection when cathode is biased at a higher potential than reference potential. For the advantageous of the cathode engages the block

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and is biased at a higher potential than the reference potential, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide prior art figure 1 with the cathode engages the block and is biased at a higher potential than the reference potential as taught or suggested by Broberg.

With respect to claims 2, 8-9 and 15, prior art figure 1 shows a plasma supporting interior passage (14) between the cathode and the anode, wherein the biasing electrode overlies the passage and extends between the cathode and the anode, the biasing electrode is biased above the reference potential, and reference potential is substantially ground, note col. 1.

### ***Allowable Subject Matter***

2. Claims 3-7, 10-14 and 16-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### **Response to Arguments**

3. Applicant's arguments filed on June 18, 2003 have been fully considered but they are not persuasive.

On page 3 Applicant argues that Broberg patent does not disclose that the cathode (30) is biased at higher potential than the reference potential at which the block (10) is maintained. It is disagreed because the new rejection in combination of prior art figure 1 in view of Broberg shows that the negative of the source (50) is connected to cathode (30) and connected to the

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block (10) over impedance (220), when the cathode is biased at a higher potential than the reference potential, i.e. ground.

On page 4 Applicant argues that The Broberg patent does not disclose that the cathode (30) is biased at lower potential than the reference potential at which the block (10) is maintained, and the Broberg patent does not disclose that the anodes (17 and 21) are biased at higher potential than this reference potential. It is disagreed because prior art figure 1 shows the cathode (22) is biased at lower potential than the reference potential at which the block (10) is maintained and the anodes (24, 26) are biased at higher potential than this reference potential, note col. 1 section (0002) of this application.

On application drawing figure 1 shows the source (30) has a negative connects to anodes (24, 26) and a negative connects to cathode (22). Also in drawing figure 3 shows the source (90) has a positive connected to cathode (82) and a positive connected to anodes (84, 86), this is not clear how the system works with this connection. Also in figure 4 shows the dither motor (118) is a portion of the block (102), the dither motor is connected to ground and the source (124) has the negative is connected to the block (102) with this connection the system is a short circuit. According to the above reasons, Applicant's argument is not persuasive. Claims 1-23 are not patentable over prior art figure 1 in combination with Broberg.

#### ***Communication Information***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan M Nguyen whose telephone number is (703) 306-0247. The examiner can normally be reached on 8am to 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.



Paul Ip  
SPE  
Art unit 2828

TMN  
October 1, 2003